

What is claimed is:

1. A printing apparatus comprising:
 - a rotational support section that rotatably supports a recording medium;
 - a character string storing section that stores an input character string;
- 5 a print section that prints the character string within a predetermined print range of the recording medium supported by said rotational support section by one printing operation;
 - an arrangement pattern storing section, being prepared in advance, that stores a plurality of kinds of arrangement patterns to arrange the character string along a circle or
 - 10 arc having a predetermined length;
 - an arrangement pattern selecting section that selects one arrangement pattern from the plurality kinds of arrangement patterns stored in said arrangement pattern storing section;
 - an operational condition setting section that sets the number of printing operation
 - 15 times of said print section necessary to print the character string and each operational condition of a rotation angle of said rotational support section corresponding to one printing operation of said print section based on the print range and the selected arrangement pattern;
 - a print data creating section that creates print data, which corresponds to the set
 - 20 number of printing operation times, where the character string is arranged within the print range along the circumference around the center of the recording medium based on the selected arrangement pattern; and
 - a control section that repeatedly performs an operation that causes each created print data to be printed on the recording medium by one printing operation of said print section
 - 25 in a state that the rotation of said rotation support section is stopped, while an operation that causes said rotation support section to be rotated by the set rotation angle before a next printing operation of said print section is started according to the set operational

condition.

2. The printing apparatus according to claim 1, further comprising a character size setting section that sets a character size of the character string, wherein said character size setting section sets the number of printing operation times and each operational
5 condition of the rotation angle based on the set character size, print range, and the selected arrangement pattern, and said print data creating section creates the print data such that the character string with the set character size is arranged within the print range along the circumference around the center of the recording medium.

3. The printing apparatus according to claim 2, further comprising a character
10 number detecting section that detects the number of characters of the character string, wherein said character size setting section sets a character size of the character string based on the detected number of characters and the selected arrangement pattern.

4. The printing apparatus according to claim 2, wherein said character size
15 character size setting section sets the character size of the character string according to a designated character size.

5. The printing apparatus according to claim 2, wherein said print data creating section arranges the respective characters of the character string with equal distances based on the selected arrangement pattern.

6. The printing apparatus according to claim 1, wherein said arrangement
20 pattern storing section stores arrangement data indicating an arrangement position and an inclination with respect to each character that forms the character string arranged along the circle or arc.

7. The printing apparatus according to claim 6, wherein said print data creating section arranges the respective characters of the character string in a radial manner to the
25 center of the recording medium based on the arrangement data corresponding to the selected arrangement pattern.

8. The printing apparatus according to claim 1, wherein said print section

includes a thermal head and moves the thermal head as pressing an ink ribbon against the recording medium supported by said rotation support section to thermally transfer ink of the ink ribbon, thereby printing the character string.

9. The printing apparatus according to claim 1, wherein the recording medium is
5 a data recordable optical disk having a circular hole at its center, and the character string is printed along the circumference around the circular hole.

10. A printing method that prints a character string in a circular or arc shape along a circumference around a center of a rotatably supported recording medium by a plurality of times of printing operations, comprising the steps of:

10 storing a character string to be printed;

selecting one arrangement pattern from a plurality kinds of arrangement patterns, being prepared in advance, for arranging the character string along a circle or arc having a predetermined length;

setting the number of printing operation times necessary to print the character string
15 and each operational condition of a rotation angle of the recording medium corresponding to one printing operation based on a printable range by one printing operation and the selected arrangement pattern;

creating print data, which corresponds to the set number of printing operation times, where the character string is arranged within the print range along the circumference
20 around the center of the recording medium based on the selected arrangement pattern; and

repeatedly performing an operation that causes each created print data to be printed on the recording medium by one printing operation in a state that the rotation of the recording medium is stopped, while an operation that causes the recording medium to be rotated by the set rotation angle before a next printing operation is started according to the
25 set operational condition.

11. The printing method according to claim 10, further comprising the step of setting a character size of the character string based on the number of characters of the

character string and the selected arrangement pattern, wherein in said operational condition setting step, the number of printing operation times and each operational condition of the rotation angle based on the set character size, the print range, and the selected arrangement pattern, in said print data creating step, the print data is created such
 5 that the character string with the set character size is arranged within the print range along the circumference around the center of the recording medium.

12. The printing method according to claim 10, further comprising the step of designating a character size of the character string, wherein in said operational condition setting step, the number of printing operation times, and each operational condition of the
 10 rotation angle are set based on the designated character size, the print range, and the selected arrangement pattern, in said print data creating step, the print data is created such that the character string with the set character size is arranged within the print range along the circumference around the center of the recording medium.

13. A program causing a computer to execute the steps of:
 15 storing a character string to be printed;
 selecting one arrangement pattern from a plurality kinds of arrangement patterns, being prepared in advance, for arranging the character string along a circle or arc having a predetermined length;

setting the number of printing operation times necessary to print the character string
 20 and each operational condition of a rotation angle of the recording medium corresponding to one printing operation based on a printable range by one printing operation and the selected arrangement pattern;

creating print data, which corresponds to the set number of printing operation times, where the character string is arranged within the print range along the circumference
 25 around the center of the recording medium based on the selected arrangement pattern; and

repeatedly performing an operation that causes each created print data to be printed on the recording medium by one printing operation in a state that the rotation of the

recording medium is stopped, while an operation that causes the recording medium to be rotated by the set rotation angle before a next printing operation is started according to the set operational condition.